

Schematic representation of ELA virus S2 gene and mutant clones derived from ELAV<sub>UK</sub>. The ELA proviral DNA is shown at the top; the complete deduced amino acid sequence of the putative S2 protein is shown in single letter amino acid code at the bottom. Stop codons (indicated by arrows) were introduced into various positions in the ELA virus S2 gene to generate the specific mutant virus strains.

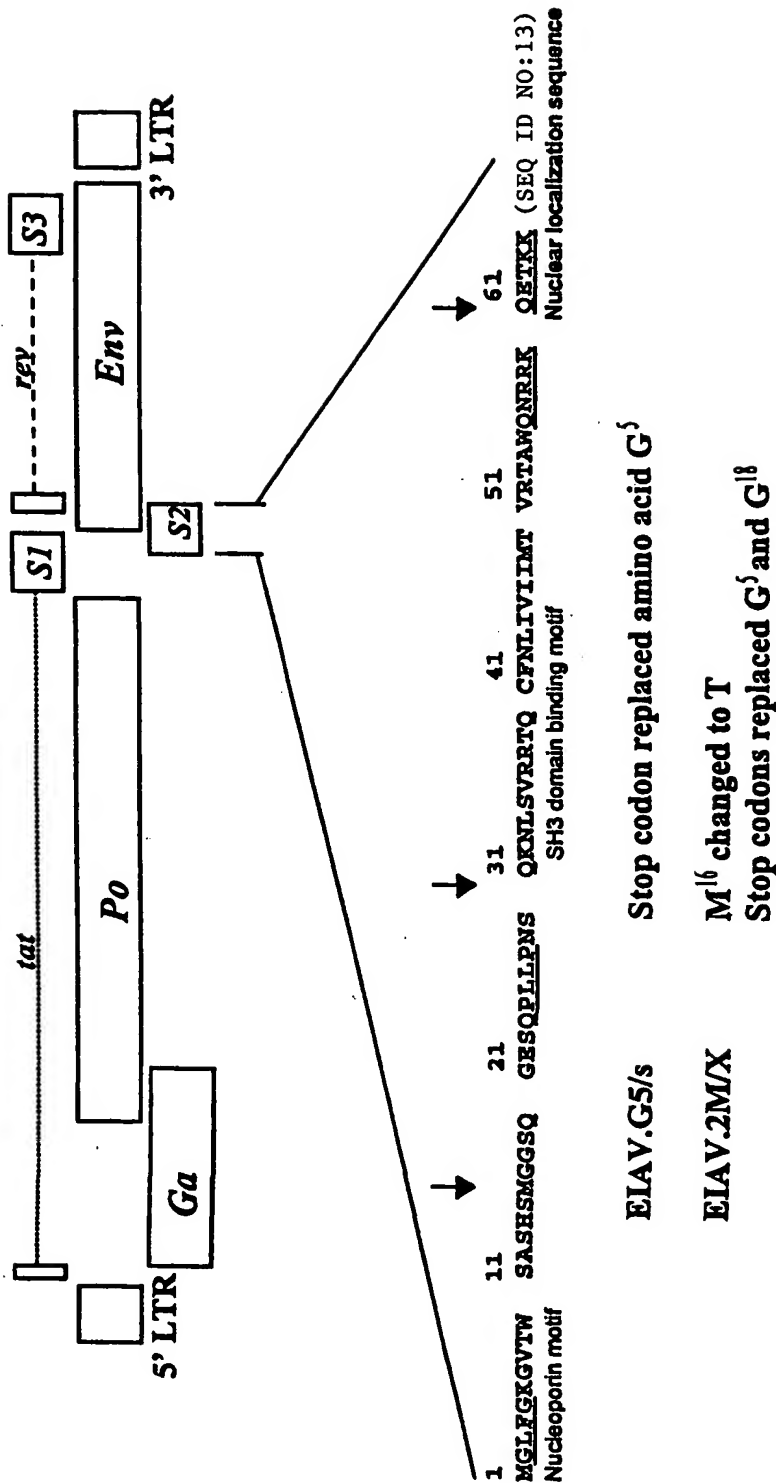
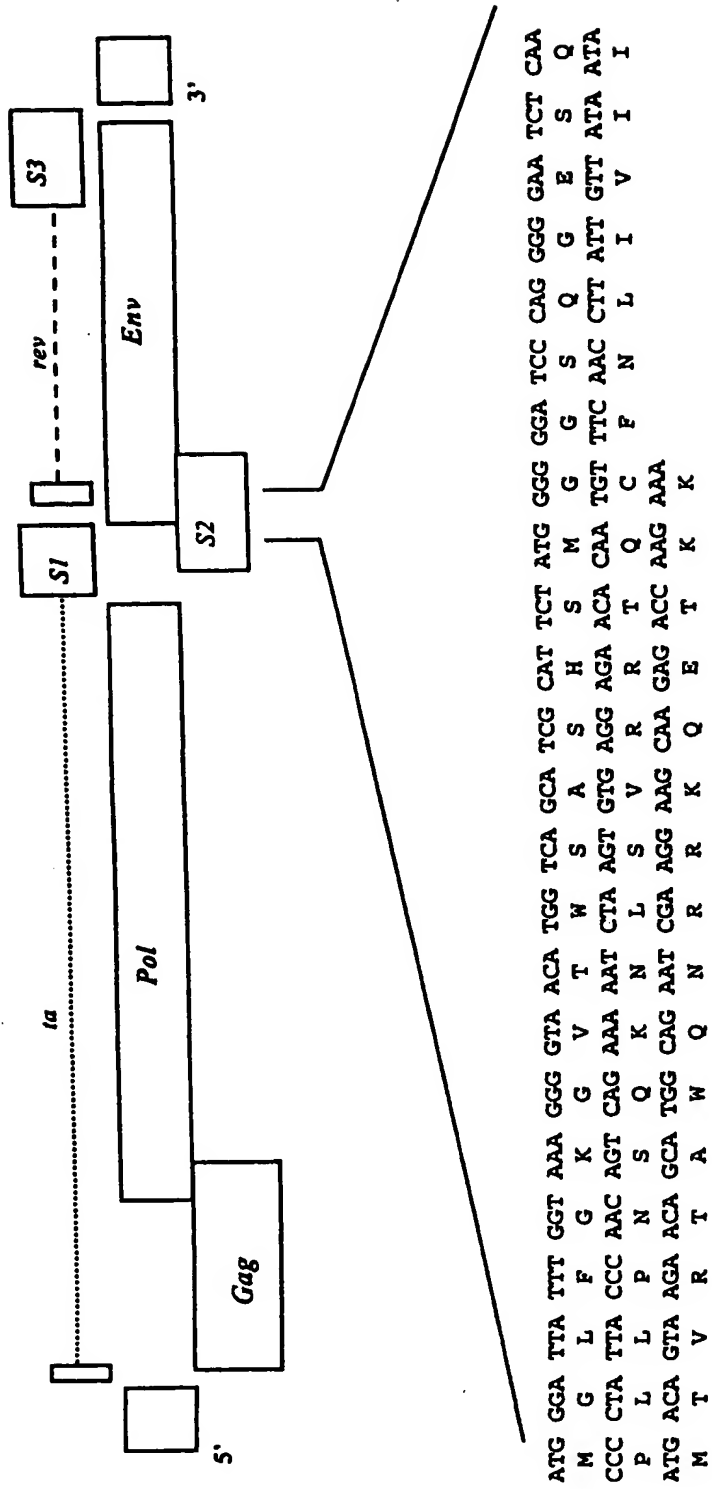


FIG. 2a



Schematic representation of the Wild-type EIAV S2 gene compared with the  $\Delta$  S2 gene of EIAV.2M/X (EIAV<sub>UK</sub> $\Delta$ S2)



(SEQ ID NO:14)

Wild  
type

ATG GGA TTA TTT GGT AAA GGG GTA ACA TGG TCA GCA TCG CAT TCT ATG GGG GGA TCC CAG GGG GAA TCT CAA  
M G L F G K G V T W S A S H S M G G S Q G E S Q  
CCC CTA TTA CCC AAC AGT CAG AAA AAT CTA AGT GTG AGG AGA ACA CAA TGT TTC AAC CTT ATT GTT ATA ATA  
P L L P N S Q K N L S V R R T Q C F N L I V I I  
ATG ACA GTA AGA ACA GCA TGG CAG AAT CGA AGG AAG CAA GAG ACC AAG AAA  
M T V R T A W Q N R R K Q E T K K

(SEQ ID NO:15)

$\Delta$ S2

ATG GGA GTA TAC TAG TGT AAA GGG GTA ACA TGG TCA GCA TCG CAT TCT ACG GGG TGA TCC CAG GGG GAA TCT  
M G V Y C K G V T W S A S H S T G S Q G E S  
CAA CCC CTA TTA CCC AAC AGT CAG AAA AAT CTA AGT GTG AGG AGA ACA CAA TGT TTC AAC CTT ATT GTT ATA  
Q P L L P N S Q K N L S V R R T Q C F N L I V I  
ATA ATG ACA GTA AGA ACA GCA TGG CAG AAT CGA AGG AAG CAA GAG ACC AAG AAA  
I M T V R T A W Q N R R K Q E T K K

FIG. 2b

# REPLACEMENT SHEET

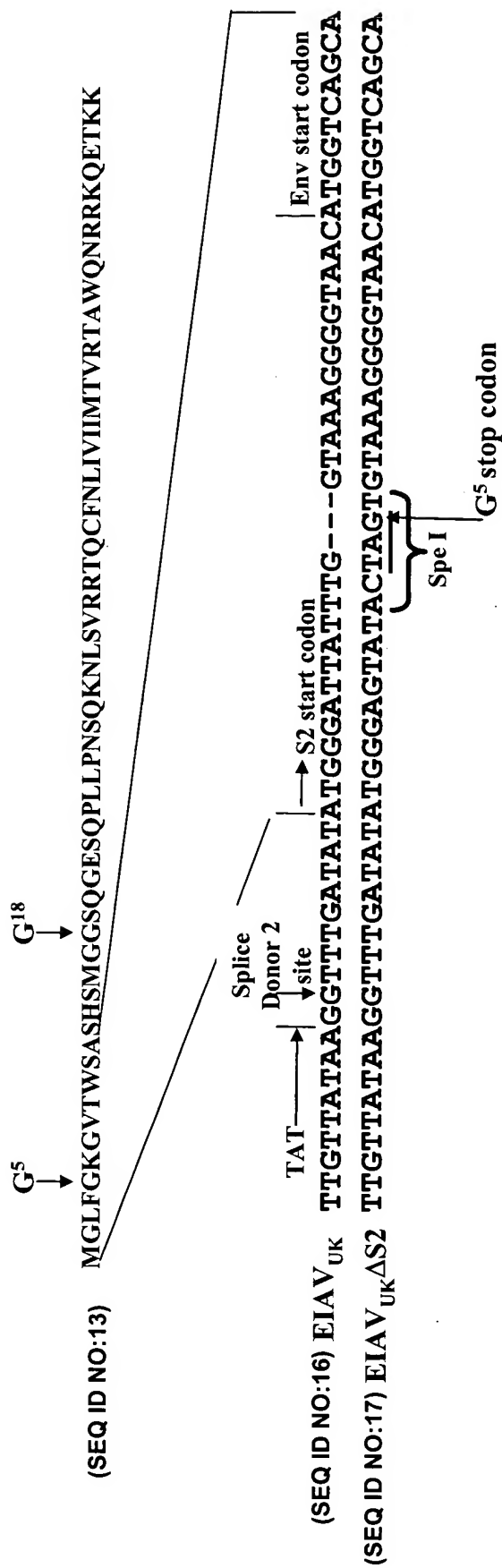


FIGURE 6

## REPLACEMENT SHEET

(SEQ ID NO:17)  $\Delta$ S2: TTGTTATAAGGTTTGATATATGGAGTATACTAGTGTAAGGGGTAACATGGTCAGCA  
(SEQ ID NO:18) D14: TTGTTATAAGGTTT-----TACTAGTGTAAGGGGTAACATGGTCAGCA  
(SEQ ID NO:19) D25: TTGTTATAAGGTTT-----TACTAGT-----ACATGGTCAGCA

FIGURE 7

# REPLACEMENT SHEET

(SEQ ID NO:17)  $\Delta$ S2: TTGTTATAAGGTTTGATATATGGGAGTATACTAGTGTAAGGGGTAACATGGTCAGCA  
(SEQ ID NO:20) D6: TTGTTATAAGGTTTGA-----GGAGTATACTAGTGTAAGGGGTAACATGGTCAGCA  
(SEQ ID NO:21) D9: TTGTTATAAGGTTTGA-----GTATACTAGTGTAAGGGGTAACATGGTCAGCA

FIGURE 9